# SERGEY KARAYEV

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OBJECTIVE

Develop and deploy AI systems to improve human life.

EXPERIENCE

**Head of AI for STEM**
*Turnitin, Oakland, CA* *October 2018 - present*
Gradescope was acquired as a standalone product by Turnitin, a leading educational technology company that has previously focused on assessment of writing. My role is to accelerate development of AI technologies for STEM assessment.

**Organizer and Instructor**
*Full Stack Deep Learning* *August 2018 - present*
Co-developed materials for a weekend bootcamp program for software developers familiar with deep learning to get first-hand experience with the best practices of all components of a DL project. Also taught the same materials as a UW Professional Master's Program course.

**Co-founder**
*Gradescope, Berkeley, CA* *September 2014 - October 2018*
Gradescope enables instructors to grade paper-based exams, online homework, and programming projects on one platform, with AI assistance.

**Graduate Student Researcher**
*UC Berkeley* *September 2009 - September 2014*
Thesis work on novel application of reinforcement learning techniques to the task of object recognition. Contributed to the development of Caffe, a popular deep learning frameworks. Developed a 3D perception dataset and method, and a novel hierarchical generative model.

**Research Intern**
*Creative Tech. Lab at Adobe, San Francisco, CA* *Summer 2013*
Developed a system for recognizing the style of photographs and paintings.

**Graduate Student Instructor**
*University of California, Berkeley* *Fall 2012, Fall 2013*
Led section and composed exams for the Introduction to AI course.

**Research and Development Intern**
*Artsy, New York City, NY* *Summer 2012*
Prototyped a system for the recognition of visual properties of artwork.

**Undergraduate Researcher**
*University of Washington* *October 2007 - June 2009*
Worked on augmented reality on the iPhone and human-computer interaction via webcam.

**Software Development Intern**
*Zillow.com, Seattle, WA* *Summer 2008*
Maintained, improved, and added features for a high-traffic consumer website.

**Teaching Assistant**
*University of Washington* *Winter 2007, Spring 2007*
Led section and graded for the introductory programming courses.

**Research Apprentice**
*Friday Harbor Laboratories (UW)* *Spring 2006*
Explored the distribution of neuropeptides in a sea slug central nervous system.

## EDUCATION

**University of California, Berkeley** · *August 2009 - December 2014*
Ph.D. Computer Science
*Thesis Advisor*: Trevor Darrell

**University of Washington, Seattle** · *September 2005 - June 2009*
B.S. Computer Science & B.A. Psychology
*Thesis Advisor*: Steven Seitz

## PUBLICATIONS

**Analysis of Grading Times of Short Answer Questions** at *L@S 2020*
Michael Yen, Sergey Karayev, Eric Wang

**Grades are not Normal: Improving Exam Score Models** at *EDM 2019*
Noah Arthurs, Ben Stenhaug, Chris Piech, Sergey Karayev

**How Do Professors Format Exams? An Analysis of Question Variety at Scale** at *L@S 2018*
Paul Laskowski, Sergey Karayev, Marti Hearst

**Gradescope: A Fast, Flexible, and Fair System for Scalable Assessment** at *L@S 2017*
Arjun Singh, Sergey Karayev, Kevin Gutowski, Pieter Abbeel

**Anytime Recognition of Objects and Scenes** at *CVPR 2014* (oral)
Sergey Karayev, Mario Fritz, Trevor Darrell

**Recognizing Image Style** at *BMVC 2014*
Sergey Karayev, Matthew Trentacoste, Helen Han, Aseem Agarwala, Trevor Darrell, Aaron Hertzmann, Holger Winnemöller

**Caffe: Convolutional Architecture for Fast Feature Embedding** at *ACM MM 2014*
Yangqing Jia, Evan Shelhamer, Jeff Donahue, Sergey Karayev, Jonathan Long, Ross Girshick, Sergio Guadarrama, Trevor Darrell

**Dynamic Feature Selection for Classification on a Budget** at *ICML-W 2013*
Sergey Karayev, Mario Fritz, Trevor Darrell

**A Category-Level 3-D Object Dataset: Putting the Kinect to Work** at *ICCV-W 2013*
Allison Janoch, Sergey Karayev, Yangqing Jia, Jonathan T. Barron, Mario Fritz, Kate Saenko, Trevor Darrell

**Timely Object Recognition** at *NIPS 2012*
Sergey Karayev, Tobias Bamgartner, Mario Fritz, Trevor Darrell

**3-D Object Detection Using Category and Instance-level Appearance Models** at *IROS 2011*
Kate Saenko, Sergey Karayev, Yangqing Jia, Alex Shyr, Allison Janoch, Jon Long, Mario Fritz, Trevor Darrell

**A Probabilistic Model for Recursive Factorized Image Features** at *CVPR 2011*
Sergey Karayev, Mario Fritz, Sanja Fidler, Trevor Darrell

**An Additive Latent Feature Model for Transparent Object Recognition** at *NIPS 2009*

Mario Fritz, Michael Black, Gary Bradski, Sergey Karayev, Trevor Darrell

## AWARDS

**UW Engineering Early Career Award** 2019
**Mark Everingham Prize** (for work on the Caffe open source software), 2017
**National Defense Science and Engineering Graduate Fellowship**, 2009-2012
**Mary Gates Research Scholarship**, 2008
**Microsoft Scholarship**, 2008
**Honors Bordeaux Scholarship**, 2008
**Mary Gates Honors Scholarship**, 2005-2007
**Robert C. Byrd Honors Scholarship**, 2005-2009
**National Merit Scholarship**, 2005-2009
**Undergraduate Academic Excellence Scholarship** , 2005.